Title (en)

STENT AND METHOD OF MANUFACTURE

Title (de)

STENT UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

EXTENSEUR ET PROCEDE DE SA PRODUCTION

Publication

EP 0787020 B2 20080618 (EN)

Application

EP 95937462 A 19951019

Priority

- US 9513249 W 19951019
- US 32602394 A 19941019
- US 47819295 A 19950607

Abstract (en)

[origin: WO9612517A1] An encapsulated stent device for implantation within the vascular system includes a balloon (36) of a balloon catheter (30) formed around and adhered to a wire-like stent (10) so that the outer surface of the device is more regular for delivery through the vascular system without an exterior sheath. The encapsulation securely anchors the stent (10) to the balloon (36) and maintains a low profile for negotiation of tortuous and narrowed vessels. Encapsulation requires placement of the stent (10) over the balloon (36), placement of a sheath (42) over the stent (10) on the balloon (36), heating and preferably pressurization of the balloon (36) to cause it to expand around the stent (10) within the sheath (42), and cooling while preferably maintaining pressure to cause the balloon (36) to adhere to the stent (10) and to set the shape of the expanded balloon (10). Retainers may be placed at the distal and/or proximal ends of the stent during the encapsulation process, or the balloon material may expand to form retainers (54). The balloon (36) defines at least three folded wings for symmetrical expansion of the stent (10), and one or more connected or non-connected stents may be encapsulated depending upon the area to be treated.

IPC 8 full level

A61F 2/82 (2006.01); **A61M 29/00** (2006.01); **A61F 2/06** (2006.01); **A61F 2/84** (2006.01)

CPC (source: EP US)

A61F 2/958 (2013.01 - EP US); A61F 2002/9583 (2013.01 - EP US)

Citation (opposition)

Opponent :

- WO 9533422 A1 19951214 - MEADOX MEDICALS INC [US], et al
- DK 63894 A 19960108 - MEADOX MEDICALS INC [US]
- US 4733665 A 19880329 - PALMAZ JULIO C [US]
- US 4800882 A 19890131 - GIANTURCO CESARE [US]
- US 4906244 A 19900306 - PINCHUK LEONARD [US], et al
- US 5292331 A 19940308 - BONEAU MICHAEL D [US]
- US 5100429 A 19920331 - SINOFSKY EDWARD L [US], et al
- US 5342307 A 19940830 - EUTENEUER CHARLES L [US], et al
- GR Flex-Stent Training Manual, Cook Cardiology, 1994 and IDS of US patent application Ser. No. 09/189597, page 2, citing the GR Flex-Stent Training Manual from Cook Cardiology, 1994
- Minutes of a Hearing before the United States Department of Health and Human Services, Public Health Service, Food and Drug Administration, Circulatory System Devices Panel, 11 May 1992
- Gianturco-Roubin, Coronary Stent, Technical Information, Suggested Instructions for Placement, Cook Cardiology, 1990

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US10307277B2; US10555825B2; US9308106B2; US10166131B2; US10342688B2; US9656002B2; US10660773B2; US9199408B2; US9681972B2; US9855705B2; US10703050B2; US10967556B2; US9642729B2; US10059034B2; US11376762B2; US11806898B2

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